Amendments to the Specification:

Kindly amend the paragraph beginning on page 1, line 12 as indicated.

--The present invention relates to the field of loudspeaker systems and, more particularly, to a crossover network having a combination of steep and shallow slopes in its ~~filters~~ filter amplitude response and presents a constant impedance at its input.--

Kindly amend the paragraph beginning on page 7, line 13 as indicated.

--FIGURE 7 is a schematic diagram of a simple embodiment 130 of the inventor's infinite slope technology, which provides a crossover filter circuit having ~~substantial~~ an effectively- or quasi-infinite band edge (i.e., greater than 40 dB/octave) frequency response, as shown in FIGURE 5. Acoustic outputs of woofer 102 and tweeter 104 are therefore separate and distinct due to the effectively infinite slope at f_2, (FIGURE 5). Acoustic wave interference between woofer 102 and tweeter 104 is ~~eliminated~~ rendered ineffective (i.e., the effects of such interference are reduced to a point of inaudibility) because neither driver 102 nor 104 radiates sound energy in frequencies covered by the other. In other words, drivers on adjacent frequency bands, for example tweeter 104 and woofer 102, effectively operate independently of one another. Distortion is reduced because ~~no~~ only negligible bass energy enters and overloads the tweeter 104, and ~~no~~ only negligible high ~~frequencies enter the~~ frequency energy enters woofer 102 to cause cone breakup.--

Kindly amend the paragraph beginning on page 8, line 15 as indicated.

--The present inventor's infinite slope method, as disclosed in United States Patent No. 4,771,466 (included by reference), became the first practical, high-slope loudspeaker crossover filter system using all passive components. The disclosed method achieves a steep slope in crossover filter networks using few~~,~~ passive components. Signal loss is small, typically less than 1 dB, so system efficiency is not compromised. Also, because of the low component count, cost is reasonable.--

Kindly amend the paragraph beginning on page 9, line 12 as indicated.

--FIGURE 8a is a schematic diagram, 136, FIGURE 8b is the positive frequency axis poles and zeros (p-z), and FIGURE 8c is a typical frequency response plot of a prior art low-pass woofer crossover transfer function. Note that the mirror-image finite p-z on negative frequency axis are not shown. Three zeros are shown at infinity. If, however, a zero could be moved from infinity nearer to the positive frequency pole cluster by simple means, a practical way to increase amplitude function slope would be realized. Note that a mirror image zero would then also move on the negative frequency axis but is not shown. The inventor ~~has~~ discovered a new method (i.e., replacing coils L_1 138 and L_2 140 of FIGURE 8a with a transformer) for accomplishing this zero migration. This invention forms the basis for his 4,771,466 United States Patent filed in 1987 and included herein by reference.--

Kindly amend the paragraph beginning on page 10, line 14 as indicated.

--Mathematically, a second, finite, mirror image zero appears on the negative frequency axis (not shown) because zeros always move in pairs from infinity to mirror image positions on finite regions of the frequency axis. This "zero-moving" method produces a good (i.e., effective) approximation to a low-pass brick wall amplitude function (FIGURE 8f). Similar methods exist for band-pass and high-pass infinite slope crossover filters. These methods are described in detail in the inventor's '466 patent.--

Kindly amend the paragraph beginning on page 10, line 24 as indicated.

--Respectively shown at 144 and 144' in FIGURES 8c and 8f are slopes in the amplitude response of the low-pass filters in each respective FIGURE 8a and 8d. In FIGURE 8c, the slope 144 in response, resulting from the 3-element low-pass filter (FIGURE 8a), is 18dB/octave. In FIGURE 8f, the slope 144' ~~is on the order of~~ may be as high as 120dB/octave in the very best embodiments of the invention, which is generally recognized by those skilled in the art as a good or useful approximation to the brick wall amplitude function.--

Kindly replace Equation 7 on page 11 with:

$$M = \frac{(L11 - L22)}{4}$$

Kindly amend the paragraph beginning on page 10, line 24 as indicated.

--This gives M a value of 0.15 millihenry from Equation (7), making K equal to 0.15 from Equation (6). This transformer 152 is incorporated into the loudspeaker system crossover of FIGURE 10. Amplitude response 154 (FIGURE 11) of a midrange driver has slope 156 ~~on the order of 100dB/octave in accordance with the present invention~~ of at least 40 dB/octave and, in better embodiments of the present invention, up to 120 db/octave.--

Kindly amend the paragraph beginning on page 17, line 1 as indicated.

--United States Patent No. 5,937,072, issued August 10, 1999 to Christopher E. Combest for AUDIO CROSSOVER CIRCUIT, teaches a crossover network with relatively steep (i.e., approximately 30 dB/octave) filter slopes. The COMBEST circuitry is similar to that disclosed by the instant inventor in his '466 patent. However, COMBEST falls ~~far~~ short of true infinite slope filter slopes (i.e., greater than 40 dB/octave and up to 120 dB/octave as defined by the present inventor) and neither teaches nor suggests either the slope relaxation or the impedance control aspects of the instant invention.--

Kindly amend the paragraph beginning on page 18, line 15 as indicated.

--It is a further object of the invention to provide a crossover filter network wherein relaxation of the infinite slope for at least one filter band edge amplitude response as taught by the inventor's '466 patent optimizes "acoustic fill" at and near crossover frequencies.--